

## C L A I M S

1. An electronic apparatus equipped with at least a first transmission unit for performing a first communication by an electromagnetic wave; a second transmission unit for performing  
5 a second communication by an electromagnetic wave; and a reception unit for receiving a signal transmitted from said second transmission unit; wherein:

said electronic apparatus is comprised of:

an antenna in which a diameter of a sphere including a  
10 radiator is smaller than  $1/(2\pi)$  of a wavelength of an electromagnetic wave used in either said second transmission unit or said reception unit.

2. An electronic apparatus, as claimed in claim 1 wherein:

15 said antenna is constituted by the radiator; and a reactance element for canceling a reactance component of said radiator.

3. An electronic apparatus, as claimed in claim 1 wherein:

said first transmission unit, said second transmission unit,  
20 or either a partial circuit or all circuits of said reception unit are constructed on a semiconductor integrated circuit; and

either a portion or all of reactance components of the radiator of said antenna are canceled by both a reactance component owned by a wiring line on said semiconductor integrated circuit,  
25 and a reactance component owned by a wiring line defined from said semiconductor integrated circuit up to the radiator of the antenna.

4. An electronic apparatus equipped with at least a first

transmission unit for performing a first communication by an electromagnetic wave; a second transmission unit for performing a second communication by an electromagnetic wave; and a reception unit for receiving a signal transmitted from said second transmission unit; wherein:

said electronic apparatus is comprised of:

an antenna in which a diameter of a sphere including a radiator is smaller than  $1/(2\pi)$  of a wavelength of an electromagnetic wave used in either said second transmission unit or said reception unit;

evaluation means for evaluating a reception condition of said reception unit;

control means for controlling a frequency of an electromagnetic wave transmitted by said second transmission unit; and

feedback means for feeding back an evaluation result made by said evaluation means to said control means.

5. An electronic apparatus as claimed in any one of claim 1 to claim 4 wherein:

a shape of the radiator of said antenna is a line shape.

6. An electronic apparatus as claimed in any one of claim 1 to claim 5 wherein:

the radiator of said antenna is constituted by a print pattern formed on a printed board.

7. A wireless communication terminal comprising:

a first housing unit;

a second housing unit;

a coupling unit for coupling said first housing unit to  
said second housing unit in such a manner that a positional  
relationship between said first housing unit and said second  
5 housing unit is changeable;

an external wireless communication-purpose antenna which  
is mounted on either said first housing unit or said second housing  
unit;

an external wireless communication control unit mounted  
10 on said first housing unit, for mainly controlling an external  
wireless communication performed via said external wireless  
communication-purpose antenna;

a display unit mounted on said second housing unit;

a first internal wireless communication control unit  
15 mounted on said first housing unit, for controlling an internal  
wireless communication executed between said first housing unit  
and said second housing unit;

a second internal wireless communication control unit  
mounted on said second housing unit, for controlling an internal  
20 wireless communication executed between said first housing unit  
and said second housing unit;

a first internal wireless communication-purpose antenna  
mounted on said first housing unit, in which a diameter of a  
sphere including a radiator is smaller than  $1/(2\pi)$  of a wavelength  
25 of an electromagnetic wave used in said internal wireless  
communication;

a second internal wireless communication-purpose antenna  
mounted on said second housing unit, in which the diameter of  
the sphere including the radiator is smaller than  $1/(2\pi)$  of the

wavelength of the electromagnetic wave used in said internal wireless communication; and

an internal wireless timing control unit for controlling transmission timing of the electromagnetic wave transmitted in  
5 said internal wireless communication based upon transmission timing of the electromagnetic wave transmitted via said external wireless communication-purpose antenna.